IN THE CLAIMS

1. (Currently Amended) A method comprising:

receiving an input signal in a discrete-time domain by a blind speech user interference cancellation receiver for a high speed downlink packet access; ~~and~~

separating the input signal to a desired high speed downlink packet access signal with known spreading codes and to an interfering speech user signal with unknown spreading codes using a Walsh correlator of the blind speech user interference cancellation receiver for further processing~~.~~,

generating a soft-decision high speed downlink packet access signal from the desired high speed downlink packet access signal using a one-stage soft-decision parallel interference cancellation receiver;

generating the hard-decision high speed downlink packet access signal based on the soft-decision high speed downlink packet access signal using a hard-decision means;

generating a multiple access interference signal based on the hard-decision high speed downlink packet access signal using multiple access interference estimation means of the blind speech user interference cancellation receiver;

generating an adjusted signal by subtracting the multiple access interference signal from the input signal using a first adder; and

providing the adjusted signal to the Walsh correlator.

2. (Currently Amended) The method of claim 1, wherein after receiving said input signal the method comprising: storing said input signal in ~~the receiving and storing means having~~ a memory buffer ~~for storing the input signal~~.

3. (Cancelled) ~~The method of claim 1, further comprising:~~

~~generating a speech user interference signal) by a soft decision on the interfering speech user signal using a speech user interference estimation means of the blind speech user interference cancellation receiver;~~

~~generating an adjusted signal by subtracting the speech user interference signal from the input signal using a first adder; and~~

~~providing the adjusted signal to the Walsh correlator.~~

4. (Cancelled) ~~The method of claim 3, further comprising:~~

~~separating the adjusted signal to a further desired high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes using a Walsh correlator; and~~

~~generating a soft decision high speed downlink packet access signal from the further desired high speed downlink packet access signal using a one stage soft decision parallel interference cancellation receiver.~~

5. (Currently Amended) The method of claim ~~4~~ 6, wherein the soft-decision high speed downlink packet access signal is a blind speech user interference cancellation receiver

output signal if a final multistage is reached based on predetermined criteria.

6. (Currently Amended) ~~The method of claim 4, further comprising:~~ A method comprising:

receiving an input signal in a discrete-time domain by a blind speech user interference cancellation receiver for a high speed downlink packet access; and

separating the input signal to a desired high speed downlink packet access signal with known spreading codes and to an interfering speech user signal with unknown spreading codes using a Walsh correlator of the blind speech user interference cancellation receiver for further processing;

generating a speech user interference signal) by a soft-decision on the interfering speech user signal using a speech user interference estimation means of the blind speech user interference cancellation receiver;

generating an adjusted signal by subtracting the speech user interference signal from the input signal using a first adder; and

providing the adjusted signal to the Walsh correlator;

separating the adjusted signal to a further desired high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes using a Walsh correlator;

generating a soft-decision high speed downlink packet access signal from the further desired high speed downlink

packet access signal using a one-stage soft-decision parallel interference cancellation receiver;

generating a hard-decision high speed downlink packet access signal based on the soft-decision high speed downlink packet access signal using a hard-decision means;

generating a multiple access interference signal based on the hard-decision high speed downlink packet access signal using multiple access interference estimation means of the blind speech user interference cancellation receiver;

generating a further adjusted signal by subtracting the multiple access interference signal from the input signal using a second adder; and

providing the further adjusted signal to a further Walsh correlator.

7. (Cancelled) ~~The method of claim 1, further comprising:~~

~~generating a soft decision high speed downlink packet access signal from the desired high speed downlink packet access signal using a one stage soft decision parallel interference cancellation receiver.~~

8. (Currently Amended) The method of claim ~~7~~ 1, wherein the soft-decision high speed downlink packet access signal is a blind speech user interference cancellation receiver output signal, if a final multistage is reached based on predetermined criteria.

9. (Cancelled) ~~The method of claim 7, further comprising:~~

~~generating the hard decision high speed downlink packet access signal based on the soft decision high speed downlink packet access signal using a hard decision means;~~

~~generating a multiple access interference signal based on the hard decision high speed downlink packet access signal using multiple access interference estimation means of the blind speech user interference cancellation receiver;~~

~~generating an adjusted signal by subtracting the multiple access interference signal from the input signal using a first adder; and~~

~~providing the adjusted signal to the Walsh correlator.~~

10. (Currently Amended) The method of claim ~~9~~ 1, further comprising:

separating the adjusted signal) to a further desired high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes using a Walsh correlator;

generating a speech user interference signal by a soft-decision on the further interfering speech user signal using a speech user interference estimation means of the blind speech user interference cancellation receiver;

generating a further adjusted signal by subtracting the speech user interference signal from the input signal using a second adder; and

providing the further adjusted signal to a further Walsh correlator.

11. (Currently Amended) A blind speech user interference cancellation receiver ~~for a high speed downlink packet access~~, comprising:

a Walsh correlator, responsive to an input signal in a discrete-time domain, configured to provide two signals for a further processing by separating the input signal to a desired high speed downlink packet access signal with known spreading codes and to an interfering speech user signal with unknown spreading codes ~~.~~ ;

speech user interference estimation means, responsive to the interfering speech user signal, configured to provide a speech user interference signal by a soft-decision on the interfering speech user signal;

a first adder, responsive to the SUI speech user interference signal and to the input signal, configured to provide an adjusted signal to the Walsh correlator by subtracting the speech user interference signal from the input signal, wherein the Walsh correlator is configured to provide a further desired high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes;

a one-stage soft-decision parallel interference cancellation receiver, responsive to the further desired high speed downlink packet access signal, configured to provide a soft-decision high speed downlink packet access signal;

a hard-decision means (, responsive to the soft-decision high speed downlink packet access signal, configured to provide a hard-decision high speed downlink packet access signal;

multiple access interference estimation means, responsive to the hard-decision high speed downlink packet access signal, configured to provide a multiple access interference signal; and

a second adder, responsive to the multiple access interference signal and to the input signal, configured to provide a further adjusted signal, by subtracting the multiple access interference signal (from the input signal to a further Walsh correlator.

12. (Cancelled) ~~The blind speech user interference cancellation receiver of claim 11, further comprising:~~

~~speech user interference estimation means, responsive to the interfering speech user signal, configured to provide a speech user interference signal by a soft-decision on the interfering speech user signal; and~~

~~a first adder, responsive to the SUI speech user interference signal and to the input signal, configured to provide an adjusted signal to the Walsh correlator by subtracting the speech user interference signal from the input signal, wherein the Walsh correlator is configured to provide a further desired high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes.~~

13. (Cancelled) ~~The blind speech user interference cancellation receiver of claim 12, further comprising:~~

~~a one-stage soft-decision parallel interference cancellation receiver, responsive to the further desired high speed downlink packet access signal, configured to provide a soft decision high speed downlink packet access signal.~~

14. (Currently Amended) The blind speech user interference cancellation receiver of claim ~~13~~ 11, wherein the soft-decision high speed downlink packet access signal is a blind speech user interference cancellation receiver output signal if a predetermined criterion is met.

15. (Cancelled) ~~The blind speech user interference cancellation receiver of claim 13, further comprising:~~

~~a hard decision means (, responsive to the soft-decision high speed downlink packet access signal, configured to provide a hard decision high speed downlink packet access signal;~~

~~multiple access interference estimation means, responsive to the hard decision high speed downlink packet access signal, configured to provide a multiple access interference signal; and~~

~~a second adder, responsive to the multiple access interference signal and to the input signal, configured to provide a further adjusted signal, by subtracting the multiple access interference signal (from the input signal to a further Walsh correlator.~~

16. (Cancelled) ~~The blind speech user interference cancellation receiver of claim 11, further comprising:~~

~~a one-stage soft-decision parallel interference cancellation receiver, responsive to the desired high speed downlink packet access signal, for providing a soft-decision high speed downlink packet access signal).~~

17. (Cancelled) ~~The blind speech user interference cancellation receiver of claim 16, wherein the soft-decision high speed downlink packet access signal is a blind speech user interference cancellation receiver output signal if a predetermined criterion is met~~.

18. (Currently Amended) ~~The~~ A blind speech user interference cancellation) receiver ~~of claim 17, further~~ comprising:

a one-stage soft-decision parallel interference cancellation receiver, responsive to the desired high speed downlink packet access signal, for providing a soft-decision high speed downlink packet access signal, wherein the soft-decision high speed downlink packet access signal is a blind speech user interference cancellation receiver output signal if a predetermined criterion is met;

a hard-decision means, responsive to the soft-decision high speed downlink packet access signal, configured to provide a hard-decision high speed downlink packet access signal;

multiple access interference estimation means, responsive to the hard-decision high speed downlink packet

access signal, configured to provide a multiple access interference multiple access interference signal; and

a first adder, responsive to the multiple access interference signal and to the input signal, configured to provide a further adjusted signal to the Walsh correlator by subtracting the multiple access interference signal from the input signal, wherein the Walsh correlator is configured to provide a further desired high speed downlink packet access signal with known spreading codes and a further interfering speech user signal with unknown spreading codes.

19. (Previously Presented) The blind speech user interference cancellation receiver of claim 18, further comprising:

speech user interference estimation means, responsive to the further interfering speech user signal, configured to provide a speech user interference signal by a soft-decision on the further interfering speech user signal; and

a second adder, responsive to the speech user interference signal and to the input signal, configured to provide a further adjusted signal to a further Walsh correlator by subtracting the speech user interference signal from the input signal.

20. (Previously Presented) The blind speech user interference cancellation receiver of claim 11, further comprising:

receiving and storing means, responsive to the input signal, configured to store the input signal and for providing the input signal to the Walsh correlator.